Mononucleosis and Vaccine reaction

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This is a hypothesis that not having experienced mononucleosis(mono) may put one at higher risk for adverse reactions to the COVID-19 vaccine, particularly in regards to myocarditis and Guillain Barre syndrome. At least 90% of American adults have been infected with mono by the age of 35. Mononucleosis is caused by the Epstein-Barr virus(EBV), a form of the herpesvirus. It is directly related to the Cytomegalovirus(CMV) and Varicella-zoster virus. They are all part of the same herpesvirus family. When one has chicken pox or mononucleosis and recovers, the person develops a natural immunity to the viruses that cause them. CMV can also cause mononucleosis. I hypothesize that the temporary immunosupression induced by vaccines in general can reactivate either CMV or the Epstein Barr virus, both of which can cause mononucleosis. If the person has not had mono in the past, Epstein Barr infection after vaccination could present more severe symptoms since they would not have developed the antibodies for it earlier in life.

Guillain Barre syndrome has been associated with mononucleosis
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(72)92654-2/fulltext

and multiple studies have seen myocarditis as an initial symptom of mononucleosis.
https://journal.chestnet.org/article/S0012-3692(19)32180-4/pdf

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6907365/

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There is no vaccine for mononucleosis or the Epstein Barr virus that causes it. Symptoms of the illness are usually more severe in teens and young adults. Research should began taking note of the mononucleosis history of anyone receiving the COVID-19 vaccine. The data there could be useful in helping research find ways to lower even further the risk of adverse vaccine reaction.

Bibliography

https://my.clevelandclinic.org/health/diseases/13974-mononucleosis